

The Massachusetts HIV/AIDS Epidemic at a Glance – Detailed Data Tables and Technical Notes:

Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases who were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2012, this resulted in the removal of 3,529 HIV/AIDS cases, of which 914 have died and 2,615 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location of diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the National HIV/AIDS Surveillance System. The cases are assigned to the state that reports the earliest date of AIDS diagnosis if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that all previous HIV/AIDS fact sheets, data reports and presentations include cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual exposure mode category for males; those cases have been reassigned to the no identified risk (NIR) exposure mode category. The presumed heterosexual exposure mode category was used with the intention of identifying HIV exposure mode for females when sex with males is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of females living with HIV/AIDS and 40% of recent female HIV diagnoses are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

Estimated total number of people living with HIV/AIDS:

The CDC estimates that 18% of HIV infected persons nationwide do not know they are infected¹ (previous editions of the Epidemiologic Profile cited that 21% of HIV-infected persons did not know they were infected). Applying the national estimate to the number of people living with HIV/AIDS in Massachusetts reported to the HIV/AIDS Surveillance Program (N = 18,459 as of December 31, 2012), and adjusting for completeness of reporting, would yield an estimated 4,767 people who are infected with HIV and do not know it, and 3,257 who know their status but have not been reported. Therefore, the estimated total number of people currently living with HIV/AIDS in Massachusetts, including people known to the surveillance system, as well as those yet to be identified, and those who were first reported in another state is in the range of 27,000–29,000 people.

Caveats of the data

While trends in diagnosis of HIV infection are our best indicator for those who are most at risk of HIV infection, HIV surveillance reflects the incidence of diagnoses among people who are in care and not the actual incidence of new infections. Like AIDS diagnoses, HIV infection diagnoses are not a direct measure of incidence of infection itself. People may be living with HIV infection for many years prior to being tested and seeking care, at which point the case is considered a “diagnosis” and reported to the MDPH HIV/AIDS Surveillance Program. Furthermore, as with early data for AIDS cases, the data from the first few years of a new reporting system can be unstable, and caution should be used in interpretation. During the time a reporting system is in its infancy, there is a greater likelihood that fluctuations in data are attributable to reporting patterns and clinician education efforts rather than actual changes in disease incidence.

One must consider the effects of reporting lag on reported HIV infection diagnoses in the most recent years. Although Massachusetts regulations require providers to submit HIV case reports in a timely fashion, many 2011 HIV infection diagnoses will be reported to the surveillance program after the release of this Epidemiologic Profile. Thus, the 2011 data presented in this report may represent an undercount. Previous analyses of Massachusetts HIV/AIDS case data have suggested that the distribution of HIV infection diagnoses by race/ethnicity, gender and exposure mode for cases reported more than 6 months after diagnosis was not substantially different than the distribution of HIV cases reported within 6 months. Caution should be exercised when considering changes in HIV diagnosis trends for 2011.

¹ Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 U.S. dependent areas—2010. *HIV Surveillance Supplemental Report 2012*;17(No. 3, part A). Published June 2012.

Table 1. People living with HIV/AIDS¹, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year²: 2000–2011, Massachusetts³

Year	HIV/AIDS Prevalence	Deaths among those with HIV/AIDS	Diagnosis of HIV Infection
2000	12,520	351	1,175
2001	13,076	414	970
2002	13,751	368	1,043
2003	14,296	388	933
2004	14,856	343	903
2005	15,403	321	868
2006	15,865	316	778
2007	16,305	286	726
2008	16,739	282	716
2009	17,124	284	669
2010	17,522	255	653
2011	17,971	208	657

¹ Number of people living with HIV/AIDS on 12/31 of each year

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis from a baseline year of 2000 (one year after HIV infection reporting began) to the most recently available year.

³ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 2. Total number of people reported with HIV infection or AIDS¹ by mortality status on December 31, 2012: Massachusetts

	N	%
People Living with HIV/AIDS	18,459	59%
<i>People Living with HIV/AIDS and First Diagnosed in Another U.S. State</i>	2,615	-- ²
People Reported with HIV or AIDS Who Are Deceased	12,925	41%
Total Number of People Reported with HIV Infection or AIDS²	31,384	100%

¹ Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts; therefore people living with HIV/AIDS and first diagnosed in another U.S. state are not included in the total number of people reported with HIV Infection or AIDS.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Who is most at risk of HIV infection and how has this changed over time?

Table 3. People diagnosed with HIV infection by gender and year of diagnosis: Massachusetts¹ 2002–2011²

	Male		Female		Total
	N	%	N	%	
2002	706	68%	337	32%	1,043
2003	629	67%	304	33%	933
2004	637	71%	266	29%	903
2005	633	73%	235	27%	868
2006	557	72%	221	28%	778
2007	519	71%	207	29%	726
2008	523	73%	193	27%	716
2009	505	75%	164	25%	669
2010	469	72%	184	28%	653
2011	473	72%	184	28%	657

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 4. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Massachusetts¹, 2002–2011²

	White (NH)		Black (NH)		Hispanic/Latino		API		Total ³
	N	%	N	%	N	%	N	%	N
2002	402	39%	368	35%	246	24%	21	2%	1,043
2003	373	40%	324	35%	217	23%	13	1%	933
2004	342	38%	304	34%	239	26%	14	2%	903
2005	341	39%	295	34%	213	25%	16	2%	868
2006	325	42%	242	31%	190	24%	17	2%	778
2007	300	41%	234	32%	174	24%	16	2%	726
2008	282	39%	235	33%	168	23%	26	4%	716
2009	262	39%	225	34%	163	24%	19	3%	669
2010	259	40%	209	32%	163	25%	19	3%	653
2011	231	35%	231	35%	162	25%	24	4%	657

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 5. Males diagnosed with HIV infection by race/ethnicity and year of diagnosis: Massachusetts¹, 2002–2011²

	White (NH)		Black (NH)		Hispanic/ Latino		API		Total ³
	N	%	N	%	N	%	N	%	N
2002	330	47%	195	28%	163	23%	14	2%	706
2003	314	50%	169	27%	133	21%	9	1%	629
2004	299	47%	167	26%	157	25%	11	2%	637
2005	303	48%	166	26%	149	24%	14	2%	633
2006	279	50%	124	22%	137	25%	13	2%	557
2007	245	47%	139	27%	123	24%	10	2%	519
2008	253	48%	129	25%	114	22%	22	4%	523
2009	229	45%	141	28%	120	24%	15	3%	505
2010	224	48%	111	24%	117	25%	16	3%	469
2011	194	41%	134	28%	120	25%	19	4%	473

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity (NH) = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaskan Native, Other/Und. = Other/Undetermined Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 6. Females diagnosed with HIV infection by race/ethnicity and year of diagnosis: Massachusetts¹, 2002–2011²

	White (NH)		Black (NH)		Hispanic/ Latina		API		Total ³
	N	%	N	%	N	%	N	%	N
2002	72	21%	173	51%	83	25%	7	2%	337
2003	59	19%	155	51%	84	28%	4	1%	304
2004	43	16%	137	52%	82	31%	3	1%	266
2005	38	16%	129	55%	64	27%	2	1%	235
2006	46	21%	118	53%	53	24%	4	2%	221
2007	55	27%	95	46%	51	25%	6	3%	207
2008	29	15%	106	55%	54	28%	4	2%	193
2009	33	20%	84	51%	43	26%	4	2%	164
2010	35	19%	98	53%	46	25%	3	2%	184
2011	37	20%	97	53%	42	23%	5	3%	184

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity (NH) = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaskan Native, Other/Und. = Other/Undetermined Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 7. People diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts¹, 2002–2011²

	MSM		IDU		MSM/ IDU		HTSX		Pres. HTSX ³		Undeter- mined ⁴		Total ⁵
	N	%	N	%	N	%	N	%	N	%	N	%	N
2002	316	30%	189	18%	32	3%	180	17%	123	12%	196	19%	1,043
2003	308	33%	144	15%	33	4%	131	14%	126	14%	177	19%	933
2004	288	32%	145	16%	26	3%	132	15%	110	12%	191	21%	903
2005	332	38%	120	14%	23	3%	109	13%	96	11%	183	21%	868
2006	322	41%	96	12%	17	2%	98	13%	99	13%	141	18%	778
2007	275	38%	98	13%	21	3%	81	11%	81	11%	165	23%	726
2008	279	39%	71	10%	30	4%	92	13%	78	11%	160	22%	716
2009	295	44%	45	7%	17	3%	87	13%	65	10%	155	23%	669
2010	266	41%	62	9%	18	3%	79	12%	79	12%	143	22%	653
2011	247	38%	55	8%	18	3%	83	13%	71	11%	180	27%	657

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁵ Totals include pediatric and blood/blood products exposure modes

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 8. Males diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts¹, 2002–2011²

	MSM		IDU		MSM/IDU		HTSX		Undetermined ³		Total ⁴
	N	%	N	%	N	%	N	%	N	%	N
2002	316	45%	130	18%	32	5%	60	8%	163	23%	706
2003	308	49%	93	15%	33	5%	42	7%	143	23%	629
2004	288	45%	100	16%	26	4%	47	7%	171	27%	637
2005	332	52%	88	14%	23	4%	34	5%	156	25%	633
2006	322	58%	49	9%	17	3%	42	8%	125	22%	557
2007	275	53%	60	12%	21	4%	27	5%	134	26%	519
2008	279	53%	45	9%	30	6%	28	5%	135	26%	523
2009	295	58%	31	6%	17	3%	26	5%	134	27%	505
2010	266	57%	40	9%	18	4%	24	5%	118	25%	469
2011	247	52%	35	7%	18	4%	23	5%	149	32%	473

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁴ Totals include pediatric and blood/blood products exposure modes.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex
Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 9. Females diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts¹, 2002–2011²

	IDU		HTSX		Pres. HTSX ³		Undetermined ⁴		Total ⁵
	N	%	N	%	N	%	N	%	N
2002	59	18%	120	36%	123	36%	33	10%	337
2003	51	17%	89	29%	126	41%	34	11%	304
2004	45	17%	85	32%	110	41%	20	8%	266
2005	32	14%	75	32%	96	41%	27	11%	235
2006	47	21%	56	25%	99	45%	16	7%	221
2007	38	18%	54	26%	81	39%	31	15%	207
2008	26	13%	64	33%	78	40%	25	13%	193
2009	14	9%	61	37%	65	40%	21	13%	164
2010	22	12%	55	30%	79	43%	25	14%	184
2011	20	11%	60	33%	71	39%	31	17%	184

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up.

⁵ Totals include pediatric and blood/blood products exposure modes

IDU = Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 10. People diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts¹, 2002–2011²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	
2002	603	58%	94	9%	346	33%	1,043
2003	573	61%	81	9%	279	30%	933
2004	542	60%	98	11%	263	29%	903
2005	521	60%	77	9%	270	31%	868
2006	479	62%	57	7%	242	31%	778
2007	448	62%	57	8%	221	30%	726
2008	435	61%	67	9%	214	30%	716
2009	410	61%	48	7%	211	32%	669
2010	402	62%	44	7%	207	32%	653
2011	404	61%	39	6%	214	33%	657

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 11. Males diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts¹, 2002–2011²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	
2002	448	63%	59	8%	199	28%	706
2003	442	70%	39	6%	148	24%	629
2004	434	68%	63	10%	140	22%	637
2005	417	66%	53	8%	163	26%	633
2006	373	67%	40	7%	144	26%	557
2007	346	67%	39	8%	134	26%	519
2008	359	69%	41	8%	123	24%	523
2009	340	67%	31	6%	134	27%	505
2010	328	70%	34	7%	107	23%	469
2011	321	68%	27	6%	125	26%	473

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 12. *Females* diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts¹ 2002–2011²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	
2002	155	46%	35	10%	147	44%	337
2003	131	43%	42	14%	131	43%	304
2004	108	41%	35	13%	123	46%	266
2005	104	44%	24	10%	107	46%	235
2006	106	48%	17	8%	98	44%	221
2007	102	49%	18	9%	87	42%	207
2008	76	39%	26	13%	91	47%	193
2009	70	43%	17	10%	77	47%	164
2010	74	40%	10	5%	100	54%	184
2011	83	45%	12	7%	89	48%	184

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 13. People diagnosed with HIV infection by race/ethnicity¹ and place of birth: Massachusetts², 2009–2011³

Race/Ethnicity:	US		Puerto Rico/ US Dependency ⁴		Non-US	
	N	%	N	%	N	%
White (NH)	691	92%	-- ⁵	<1%	60	8%
Black (NH)	328	49%	-- ⁵	<1%	336	51%
Hispanic/Latino	170	35%	129	26%	189	39%
API	19	31%	0	0%	43	69%
Total	1,216	61%	--⁵	7%	632	32%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Data for American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers.

³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

⁴ Ninety-eight percent of people diagnosed with HIV infection from 2009–2011 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

⁵ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 14. People diagnosed with HIV infection by gender and race/ethnicity: Massachusetts¹, 2009–2011²

Race/Ethnicity:	Male		Female		State Total	
	N	%	N	%	N	%
White (NH)	647	45%	105	20%	752	38%
Black (NH)	386	27%	279	52%	665	34%
Hispanic/Latino	357	25%	131	25%	488	25%
API	50	3%	12	2%	62	3%
Other/Unknown	7	0%	5	1%	12	1%
Total	1,447	100%	532	100%	1,979	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding). Data as of 1/1/13

Table 15. People diagnosed with HIV infection by gender and exposure mode: Massachusetts¹, 2009–2011²

Exposure Mode:	Male		Female		State Total	
	N	%	N	%	N	%
Male-to-male sex (MSM)	808	56%	N/A	N/A	808	41%
Injection drug use (IDU)	106	7%	56	11%	162	8%
MSM/IDU	53	4%	N/A	N/A	53	3%
Heterosexual sex	73	5%	176	33%	249	13%
Other	6	<1%	8	2%	14	1%
Total undetermined/other	401	28%	292	55%	693	35%
- Pres. HTSX ³	N/A	N/A	215	40%	215	11%
- Undetermined ⁴	401	28%	77	14%	478	24%
Total	1,447	100%	532	100%	1,979	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

Pres. HTSX = Presumed Heterosexual Sex; N/A = Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Who is currently living with HIV/AIDS in Massachusetts?

Table 16. People living with HIV/AIDS on December 31, 2012 by gender, race/ethnicity, place of birth and health service region: Massachusetts¹

People Living with HIV/AIDS on 12/31/12		
Gender:	N	%
Male	13,144	71%
Female	5,315	29%
Race/Ethnicity:	N	%
White, non-Hispanic	8,028	43%
Black, non-Hispanic	5,516	30%
Hispanic/Latino	4,506	24%
Asian/Pacific Islander	309	2%
Other/Unknown	100	1%
Place of Birth:	N	%
US	12,165	66%
Puerto Rico/US Dependency ²	1,929	10%
Non-US	4,365	24%
Health Service Region ³ :	N	%
Boston HSR	5,828	32%
Central HSR	1,598	9%
Metro West HSR	2,628	14%
Northeast HSR	2,892	16%
Southeast HSR	2,520	14%
Western HSR	2,032	11%
Prison ⁴	956	5%
Total⁵	18,459	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Ninety-eight percent of people living with HIV/AIDS who were born in a US Dependency were born in Puerto Rico, <1% were born in the US Virgin Islands, <1% were born in Guam and 2% were born in an unknown dependency.

³ Reflects the health service region of a person's residence at the time of report (not necessarily current residence); See Epidemiologic Profile General Appendices, Health Service Region Maps, available at http://www.mass.gov/dph/aids/research/profile2005/app5_hrs_maps.pdf for configuration of health service regions

⁴ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons are not an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. The prisons category represents persons who were diagnosed with HIV/AIDS while in a correctional facility. These data do not reflect current incarceration status.

⁵ Total includes five people living with HIV/AIDS with unknown HSR; Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 17. People living with HIV/AIDS by exposure mode: Massachusetts¹

People Living with HIV/AIDS on 12/31/12		
Exposure Mode:	N	%
Male-to-male sex (MSM)	6,720	36%
Injection drug use (IDU)	3,753	20%
MSM/IDU	627	3%
Receipt of blood/blood products/other	72	<1%
Pediatric	337	2%
Total heterosexual sex (HTSX)	2,647	14%
• HTSX w/ an injection drug user	885	5%
• HTSX w/ bisexual male (females only)	45	<1%
• HTSX w/ a person w/ HIV or AIDS	1,671	9%
• Other HTSX ²	46	<1%
Total undetermined/other	4,303	23%
• Presumed heterosexual sex ³	1,600	9%
• Undetermined/other ⁴	2,703	15%
Total	18,459	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes heterosexual sex with a person who received blood/blood products.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Note: The category of “presumed heterosexual” is used in Massachusetts to re-assign females who are reported with an exposure of heterosexual sex, but only with a partner of unknown HIV status or behavioral risk. Massachusetts uses the category of presumed heterosexual to distinguish these female cases from other undetermined cases about which we know less. Prior to January 1, 2011, the presumed heterosexual category was also used to report HIV data in males. The rationale for the application of the presumed heterosexual exposure mode category to females only has been addressed in the MDPH OHA report “Intersecting Risks: HIV Infection among Heterosexual Women and Men in Massachusetts.” (2010)

http://www.mass.gov/Eeohhs2/docs/dph/aids/intersecting_risks.pdf. Nationally, the Centers for Disease Control and Prevention categorize “presumed heterosexual” cases as “no identified risk” (NIR). As such, comparisons of the presumed heterosexual category cannot be made to national data. Caution should be used in interpreting data for presumed heterosexual, as it is still not clear what the exposure risk was for females in this category. Although a person may not report other risk behaviors, such as injection drug use to a health care provider, it does not exclude the possibility that an individual has experienced these other risks. There are many barriers to disclosing HIV risk behaviors in the health care setting such as a limited patient-provider relationship or stigma.

Table 18. People living with HIV/AIDS on December 31, 2012 by gender and race/ethnicity: Massachusetts¹

Race/Ethnicity:	Male		Female	
	N	%	N	%
White, non-Hispanic	6,667	51%	1,361	26%
Black, non-Hispanic	3,125	24%	2,391	45%
Hispanic/Latino	3,049	23%	1,457	27%
Asian/Pacific Islander	240	2%	69	1%
Other/Unknown	63	<1%	37	1%
Total	13,144	100%	5,315	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.
 Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Who is experiencing differential impact from HIV/AIDS?

Explanation of age adjusted rates

A “rate” of a disease per 100,000 population is a useful way to compare groups that have substantially different population sizes rather than relying on the raw number of cases. For example, the number of people living with HIV/AIDS on December 31, 2012 who are Hispanic/Latino, is 4,506 whereas the number of people living with HIV/AIDS who are white (non-Hispanic) is 8,028. Although the *number* of people living with HIV/AIDS who are Hispanic/Latino in Massachusetts is smaller than the number of people living with HIV/AIDS who are white (non-Hispanic), we also need to consider that there are far fewer people of Hispanic/Latino heritage living in Massachusetts than white (non-Hispanic) individuals. Hispanic/Latino individuals represent 10% of the Massachusetts population compared to white (non-Hispanic) individuals who represent 78% of the population². If HIV/AIDS had the same impact on the Hispanic/Latino population of the state as on the white (non-Hispanic), then there should be eight times as many cases in white (non-Hispanic) individuals, but there are less than twice as many. By calculating a rate which takes into consideration the differences in the population size, it is evident that the number of people living with HIV/AIDS for every 100,000 Hispanic/Latino individuals in Massachusetts is much higher than the rate for every 100,000 white (non-Hispanic) individuals. This is called a “crude rate” and is calculated by dividing the number of people living with HIV/AIDS by the population of interest (the total number of Hispanic/Latino individuals in Massachusetts, for example) and multiplying by 100,000. (See example 1.A below).

² The denominators for prevalence calculations are based on year 2010 population estimates from the MDPH Bureau of Health Information, Statistics, Research and Evaluation

Example 1.A: Calculation of crude HIV/AIDS prevalence rate for white (non-Hispanic) individuals, Massachusetts (156.4 per 100,000)

$$\begin{aligned}\text{Crude HIV/AIDS prevalence rate for white (non-Hispanic) individuals} &= (\text{number of white (non-Hispanic) individuals living with HIV/AIDS} \div \text{population size of white (non-Hispanic) individuals}) \times 100,000 \\ &= (8,028 / 5,132,633) \times 100,000 \\ &= (.0015641) \times 100,000 \\ &= \mathbf{156.4}\end{aligned}$$

However, sometimes, in addition to the population size being different, the age composition of the populations is different. In Massachusetts, black (non-Hispanic) and Hispanic/Latino populations are generally younger than white (non-Hispanic). The median age of black (non-Hispanic) people (29.7 years) and Hispanic/Latino people (24.5 years) is younger than that of white (non-Hispanic) people (38.8 years). Therefore, it is necessary to “age-adjust” the HIV/AIDS prevalence rate to get a true comparison of the impact of the disease across racial/ethnic groups without an effect from the differences in age composition. Age-adjustment of rates minimizes the distortion created by differences in age composition.

Age-adjusted rates are calculated by weighting the age-specific rates for a given population by the age distribution of a standard population. The weighted age-specific rates are then added to produce the adjusted rate for all ages combined. (See example 1.B below).

Example 1.B: Calculation of age-adjusted HIV/AIDS prevalence rate for white (non-Hispanic) individuals, Massachusetts (136.9 per 100,000)

<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>
<i>Age group (in years)</i>	<i># of prevalent HIV/AIDS cases</i>	<i>Population (2010)</i>	<i>2000 US standard population weight</i>	<i>Age-adjusted rate ((B÷CxD)×100,000))</i>
<1	0	48,010	0.013818	0.00
1-4	0	200,452	0.055317	0.00
5-14	4	571,967	0.145565	0.10
15-24	94	677,899	0.138646	1.92
25-34	479	603,245	0.135573	10.77
35-44	1232	676,064	0.162613	29.63
45-54	3469	841,315	0.134834	55.60
55-64	2139	697,852	0.087247	26.74
65-74	523	403,518	0.066037	8.56
75-84	84	275,380	0.044842	1.37
85+ years	4	136,931	0.015508	0.05
Total	8,028	5,132,633	1.000000	134.7

To see the effect of age-distribution on prevalence rates see Table 6 below for a comparison of crude and age-adjusted rates by race/ethnicity.

Table 19. Crude and age-adjusted HIV/AIDS prevalence per 100,000 population¹ on December 31, 2012 by race/ethnicity and gender: Massachusetts²

State Total:	Crude rate per 100,000	Age-adjusted rate per 100,000
White, non-Hispanic	156.4	134.7
Black, non-Hispanic	1,327.9	1,354.3
Hispanic/Latino	717.9	914.3
Asian/Pacific Islander	85.9	88.0
Total prevalence	281.9	258.5
Males:	Crude rate per 100,000	Age-adjusted rate per 100,000
White, non-Hispanic	268.9	229.4
Black, non-Hispanic	1,557.5	1,623.4
Hispanic/Latino	989.6	1,327.5
Asian/Pacific Islander	139.5	143.8
Total prevalence among males	415.1	376.9
Females:	Crude rate per 100,000	Age-adjusted rate per 100,000
White, non-Hispanic	51.3	45.8
Black, non-Hispanic	1,113.4	1,124.2
Hispanic/Latina	455.9	557.1
Asian/Pacific Islander	36.8	37.1
Total prevalence among females	157.2	148.2

¹ The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 1/1/13

Who is being concurrently diagnosed?

Table 20. People diagnosed with HIV and AIDS within two months, and all people diagnosed with HIV infection by gender, place of birth, race/ethnicity, mode of exposure and age: Massachusetts,¹ 2009–2011²

	HIV and AIDS diagnosed within two months	All HIV infections diagnosed	% diagnosed with HIV and AIDS within two months
Gender:	N	N	%
Male	465	1,447	32%
Female	161	532	30%
Place of Birth:	N	N	%
US	363	1,216	30%
Puerto Rico/US Dependency ³	36	131	27%
Non-US	227	632	36%
Race/Ethnicity:	N	N	%
White (non-Hispanic)	233	752	31%
Black (non-Hispanic)	224	665	34%
Hispanic/Latino	145	488	30%
Asian/Pacific Islander	19	62	31%
Exposure Mode:	N	N	%
Male-to-male sex (MSM)	214	808	26%
Injection Drug Use (IDU)	56	162	35%
MSM/IDU	8	53	15%
Heterosexual Sex	72	249	29%
Other	4	14	29%
Total Undetermined	272	693	39%
• Presumed Heterosexual Sex ⁴	75	215	35%
• Undetermined ⁵	197	478	41%
Age:	N	N	%
Under 13	3	12	25%
13 to 19	6	52	12%
20 to 24	27	176	15%
25 to 29	31	207	15%
30 to 34	72	250	29%
35 to 39	75	277	27%
40 to 44	107	303	35%
45 to 49	118	301	39%
50 to 54	73	186	39%
55 to 59	49	109	45%
60+	65	106	61%
Total⁶	626	1,979	32%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Ninety-eight percent of people diagnosed with HIV infection from 2008–2010 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

⁴ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁵ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁶ Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

Table 21. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Massachusetts¹, 2002–2011²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2002	376	1,043	36%
2003	313	933	34%
2004	327	903	36%
2005	314	868	36%
2006	282	778	36%
2007	261	726	36%
2008	212	716	30%
2009	202	669	30%
2010	206	653	32%
2011	218	657	33%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

How have patterns of AIDS diagnoses changed over time?

Table 22. Reported AIDS cases, by race/ethnicity and year of diagnosis: Massachusetts, selected years, 1985–2011¹

	White (NH)		Black (NH)		Hispanic/ Latino		API		Total ²
	N	%	N	%	N	%	N	%	N
1985	151	67%	51	23%	22	10%	1	0%	225
1990	637	61%	232	22%	176	17%	4	0%	1,052
1995	705	53%	308	23%	300	23%	6	0%	1,326
2002	264	38%	224	33%	181	26%	15	2%	686
2003	241	40%	206	34%	148	25%	5	1%	602
2004	298	43%	208	30%	178	26%	5	1%	691
2005	249	37%	235	35%	178	26%	15	2%	678
2006	265	41%	198	31%	166	26%	13	2%	644
2007	214	39%	179	33%	140	26%	11	2%	546
2008	161	37%	152	35%	107	24%	14	3%	439
2009	170	38%	147	33%	119	27%	8	2%	445
2010	136	34%	140	35%	105	26%	14	4%	397
2011	130	34%	147	38%	89	23%	10	3%	382

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity (NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 23. Reported AIDS cases by exposure mode and year of diagnosis: Massachusetts, selected years, 1985–2011¹

	MSM		IDU		MSM/ IDU		HTSX		Pres. HTSX ²		Undeter- mined ³		Total ⁴
	N	%	N	%	N	%	N	%	N	%	N	%	N
1985	140	62%	33	15%	11	5%	8	4%	7	3%	16	7%	225
1990	459	44%	339	32%	44	4%	74	7%	16	2%	65	6%	1,052
1995	415	31%	539	41%	61	5%	157	12%	31	2%	92	7%	1,326
2002	169	25%	190	28%	24	3%	112	16%	57	8%	124	18%	686
2003	148	25%	175	29%	20	3%	85	14%	64	11%	103	17%	602
2004	185	27%	170	25%	23	3%	101	15%	64	9%	137	20%	691
2005	189	28%	182	27%	22	3%	93	14%	55	8%	133	20%	678
2006	217	34%	122	19%	18	3%	99	15%	81	13%	101	16%	644
2007	174	32%	110	20%	15	3%	78	14%	52	10%	107	20%	546
2008	139	32%	78	18%	19	4%	53	12%	46	10%	100	23%	439
2009	149	33%	81	18%	14	3%	58	13%	41	9%	98	22%	445
2010	116	29%	76	19%	11	3%	63	16%	49	12%	77	19%	397
2011	118	31%	51	13%	11	3%	47	12%	44	12%	109	29%	382

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁴ Totals include pediatric and blood/blood products exposure modes

MSM = Male-to-Male Sex; IDU = Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Who is dying with HIV/AIDS and how has this changed over time?

The death data presented in this analysis includes all deaths among people reported with HIV infection and those with AIDS in Massachusetts to present a full description of trends in mortality among this population. This includes deaths from non-HIV/AIDS related causes such as drug overdoses, suicides, motor vehicle accidents and other causes. Therefore, the total number of annual deaths reported here will vary from the number of HIV/AIDS-related deaths reported in *Massachusetts Deaths* by the Massachusetts Department of Public Health, Registry of Vital Records and Statistics, Bureau of Health Information, Statistics, Research and Evaluation.

Table 24. Deaths among persons reported with HIV infection (non-AIDS) and AIDS by year of death: Massachusetts, selected years, 1985–2011¹

	HIV	AIDS	Total HIV + AIDS
Year of death	N	N	N
1985	-- ²	118	118
1990	-- ²	618	618
1995	-- ²	1,133	1,133
2002	56	312	368
2003	66	322	388
2004	40	303	343
2005	46	275	321
2006	34	282	316
2007	44	242	286
2008	60	222	282
2009	48	236	284
2010	50	205	255
2011	35	173	208

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² HIV infection reporting was implemented in 1999; therefore there are no data for deaths among people with HIV that did not progress to AIDS during this time period.

Data Source MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 25. Deaths among persons reported with HIV/AIDS by gender and year of death: Massachusetts¹, 2002–2011

Year of death	Male		Female		Total
	N	%	N	%	N
2002	261	71%	107	29%	368
2003	255	66%	133	34%	388
2004	251	73%	92	27%	343
2005	224	70%	97	30%	321
2006	227	72%	89	28%	316
2007	201	70%	85	30%	286
2008	205	73%	77	27%	282
2009	192	68%	92	32%	284
2010	179	70%	76	30%	255
2011	150	72%	58	28%	208

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 26. Deaths among persons reported with HIV/AIDS by race/ethnicity and year of death: Massachusetts¹, 2002–2011

	White (NH)		Black (NH)		Hispanic/Latino		API		Total ²
	N	%	N	%	N	%	N	%	N
2002	177	48%	104	28%	83	23%	3	1%	368
2003	187	48%	109	28%	89	23%	1	<1%	388
2004	170	50%	86	25%	85	25%	2	1%	343
2005	150	47%	83	26%	85	26%	3	1%	321
2006	167	53%	78	25%	69	22%	2	1%	316
2007	146	51%	78	27%	61	21%	1	<1%	286
2008	138	49%	76	27%	62	22%	5	2%	282
2009	131	46%	75	26%	72	25%	6	2%	284
2010	118	46%	63	25%	68	27%	3	1%	255
2011	107	51%	56	27%	44	21%	0	0%	208

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 27. Deaths among males reported with HIV/AIDS by race/ethnicity and year of death: Massachusetts¹, 2002–2011

	White (NH)		Black (NH)		Hispanic/Latino		API		Total ²
	N	%	N	%	N	%	N	%	N
2002	135	52%	66	25%	56	21%	3	1%	261
2003	123	48%	67	26%	64	25%	1	<1%	255
2004	134	53%	56	22%	59	24%	2	1%	251
2005	109	49%	53	24%	59	26%	3	1%	224
2006	131	58%	47	21%	47	21%	2	1%	227
2007	116	58%	38	19%	46	23%	1	<1%	201
2008	108	53%	53	26%	38	19%	5	2%	205
2009	86	45%	53	28%	47	24%	6	3%	192
2010	88	49%	39	22%	49	27%	2	1%	179
2011	80	53%	38	25%	31	21%	0	0%	150

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 28. Deaths among females reported with HIV/AIDS by race/ethnicity and year of death: Massachusetts¹, 2002–2011

	White (NH)		Black (NH)		Hispanic/Latina		API		Total ²
	N	%	N	%	N	%	N	%	N
2002	42	39%	38	36%	27	25%	0	0%	107
2003	64	48%	42	32%	25	19%	0	0%	133
2004	36	39%	30	33%	26	28%	0	0%	92
2005	41	42%	30	31%	26	27%	0	0%	97
2006	36	40%	31	35%	22	25%	0	0%	89
2007	30	35%	40	47%	15	18%	0	0%	85
2008	30	39%	23	30%	24	31%	0	0%	77
2009	45	49%	22	24%	25	27%	0	0%	92
2010	30	39%	24	32%	19	25%	1	1%	76
2011	27	47%	18	31%	13	22%	0	0%	58

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 29. Deaths among persons reported with HIV/AIDS by exposure mode and year of death: Massachusetts¹, 2002–2011

	MSM		IDU		MSM/ IDU		HTSX		Pres. HTSX ²		Undeter- mined ³		Total ⁴
	N	%	N	%	N	%	N	%	N	%	N	%	N
2002	74	20%	199	54%	15	4%	33	9%	12	3%	26	7%	368
2003	66	17%	195	50%	17	4%	47	12%	9	2%	46	12%	388
2004	64	19%	172	50%	18	5%	32	9%	12	3%	38	11%	343
2005	55	17%	166	52%	15	5%	38	12%	18	6%	27	8%	321
2006	62	20%	159	50%	19	6%	31	10%	15	5%	27	9%	316
2007	64	22%	125	44%	26	9%	28	10%	13	5%	25	9%	286
2008	57	20%	127	45%	15	5%	26	9%	12	4%	41	15%	282
2009	43	15%	143	50%	9	3%	35	12%	14	5%	39	14%	284
2010	56	22%	117	46%	14	5%	18	7%	9	4%	37	15%	255
2011	41	20%	88	42%	15	7%	22	11%	7	3%	32	15%	208

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁴ Totals include pediatric and blood/blood products exposure modes

MSM = Male-to-Male Sex; IDU = Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 30. Deaths among *males* reported with HIV/AIDS by exposure mode and year of death: Massachusetts¹, 2002–2011

	MSM		IDU		MSM/IDU		HTSX		Undetermined ²		Total ³
	N	%	N	%	N	%	N	%	N	%	N
2002	74	28%	132	51%	15	6%	9	3%	25	10%	261
2003	66	26%	119	47%	17	7%	19	7%	30	12%	255
2004	64	25%	114	45%	18	7%	17	7%	32	13%	251
2005	55	25%	113	50%	15	7%	14	6%	25	11%	224
2006	62	27%	106	47%	19	8%	11	5%	26	11%	227
2007	64	32%	78	39%	26	13%	9	4%	22	11%	201
2008	57	28%	83	40%	15	7%	13	6%	33	16%	205
2009	43	22%	93	48%	9	5%	13	7%	33	17%	192
2010	56	31%	71	40%	14	8%	5	3%	30	17%	179
2011	41	27%	55	37%	15	10%	10	7%	28	19%	150

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

³ Totals include pediatric and blood/blood products exposure modes.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

Table 31. Deaths among *females* reported with HIV/AIDS by exposure mode and year of death: Massachusetts¹, 2002–2011

	IDU		HTSX		Pres. HTSX ²		Undetermined ³		Total ⁴
	N	%	N	%	N	%	N	%	N
2002	67	63%	24	22%	12	11%	1	1%	107
2003	76	57%	28	21%	9	7%	16	12%	133
2004	58	63%	15	16%	12	13%	6	7%	92
2005	53	55%	24	25%	18	19%	2	2%	97
2006	53	60%	20	22%	15	17%	1	1%	89
2007	47	55%	19	22%	13	15%	3	4%	85
2008	44	57%	13	17%	12	16%	8	10%	77
2009	50	54%	22	24%	14	15%	6	7%	92
2010	46	61%	13	17%	9	12%	7	9%	76
2011	33	57%	12	21%	7	12%	4	7%	58

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up.

⁴ Totals include pediatric and blood/blood products exposure modes

IDU = Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13